Examining Gender Differences in Teacher-Student Interactions Based on the Sinclair-Coulthard Model: Outcomes of the Study

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This article is a continuation of the ones informed previously, and comprises the last part of the MA in TESL/TEFL dissertation submitted to the University of Birmingham, and received a distinction. In this regard, the writer was asked to be a guest speaker of the university and inform its freshmen the process of conducting and writing a MA research dissertation. Therefore, the three articles are specifically written in parts for the graduate students of ELT who would be interested to know the process of writing a graduate dissertation. The study, focusing on a teacher, examines the role of his/her attention in mixed-sex classroom of Japanese students by adapting Sinclair and Coulthard's analytical categories and developing a general framework. As a case study, the framework was then employed to examine certain lessons taught by a male teacher by transcribing the lessons' data into designated categories. The current article reports the outcome of the study, its interpretation and recommendation of further study which is likely to be used to carry out a pilot study for a PhD research project.

1. Introduction

It comprises two parts whereas the first part explains the importance of English in Japan, and the second one outlines the general objectives. As for significance, English is the only foreign language taught throughout junior and senior high schools in Japan (Miura 1997, Johnson 1995, O'Sullivan, 1994, and Wadden 1993). It is also the only language which has been widely taught in many Japanese universities as a required subject, and even in some of the elementary schools as an optional subject

(*FD Foramu* 1999, and Wordell and Gorsuch 1992). On the other hand, as regards gender it is reported that it will not be unusual to meet more girls than boys not only in university classrooms, but also in those classes which are conducted by private language schools, companies, cram schools, conversation lounges, life-long educational centers, and various types of language teaching cultural centers. In addition, more girls can be found taking standardized examinations such as TOEFL (Test of English as a Foreign Language), and the most popular Japanese exam series known as *Eiken* (see STEP information 2000, and Jackson 2000: 17). It is also beyond doubt that more girls enter competitive universities of English speaking countries both through on-campus and distance learning programs.

2. Background

The background informs the literature that relates to teacher's attention in three types of classroom interactions: Non-EFL/ESL, ESL, and EFL classroom. It was found and concluded that most focus so far has been given to the non-EFL/ESL classrooms such as mathematics, science and social science subjects both for children and adults classrooms. The attention was more towards boys than girls with the remarks as follows. Male teachers direct substantially less of their classroom interaction to girls than do female teachers. This was particularly true for feedback—praise and criticism—where male teachers virtually ignore their female pupils. Next was the focus on ESL classrooms and had considerable literature with the attention more towards males than females. Lastly, the least literature relates to the EFL classrooms, and especially to the Japanese students which motivated this research to carry out and opens ways even for a PhD research project (see Farooq 2009).

3. Data Collection

The data in this study is collected from the year 1 students of a Japanese high school of boys and girls. Several lessons were observed for the purpose of testing and getting familiar with the transcribing the data. Finally, three lessons' data were randomly decided to inform in the dissertation. The transcription was tested with the help of the concerned teacher to get a reliable outcome.

4. Data Analysis

A detailed account of the development of a general framework is informed by

employing the analytical categories of Sinclair and Coulthard and to coding the data. This article is a continuation of the one informed previously (Farooq 2010), and reports the outcome of the study, its interpretation and recommendation of further study. For the Appendices referred in his article, additional results, and other information see Farooq (2000).

5. Findings

5.1 Teacher's initiating moves

5.1.1 Frequency and length

As can be seen in Table 5.1, from the total of 370 initiating moves, 266 were directed to boys and 104 to girls. This meant that the average boy (Av-B) received 24 moves and the average girl (Av-G) 10. As regards types of moves, 45 AC moves were directed to boys and 34 to girls with Av-B and Av-G as 4 and 3 respectively; and 221 NA moves to boys and 70 to girls where the ratio of Av-B and Av-G was 20:7. These findings suggested that the teacher directed more AC (slightly) and NA moves to the average boy than to the average girl.

Table 5.1: Instances and mean of the teacher's academic and non-academic moves directed to boys and girls over three lessons.

Instances of the teacher's moves	Total no. for boys	Mean for the 'average girl' (=total/ no. of boys)	Total no. for girls	Mean for the 'average boy' (=total/ no. of girls)
academic and non-academic	266	266/11 = 24	104	104/10 = 10
academic	45	4	34	3
non-academic	221	20	70	7

Table 5.2: Lengths and mean of the teacher's academic and non-academic moves directed to boys and girls over three lessons.

lengths of the teacher's moves	Total length for boys	Mean for the 'average boy' (=total/ no. of boys)	Total length for girls	Mean for the 'average girl' (=total/ no. of girls)
academic and non-academic	1080 words	98	476	48
academic moves	353	32	269	27
non-academic	727	66	207	21

Almost the same general pattern that was found in the teacher's frequency of moves above was observed as regard to their lengths (Table 5.2), the teacher directing longer moves or more words in his moves to boys (1080 words) than to girls (476) with a ratio Av-B:Av-G = 98:48 words. Furthermore, the pattern can also be seen in the AC and NA moves as is evident from the ratio of AC and NA move's lengths as Av-B: Av-G = 32:27 and 66:21 respectively.

5.1.2 Language used

As regards the language used in teacher's moves whether English (E) or English and Japanese (EJ) (Table 5.3), 203 moves (E) and 63 (EJ) were directed to boys; and 94 (E) and 10 (EJ) to girls with ratios Av-B:Av-G = 19:9 (E) and 6:1 (EJ). The same pattern was found in the teacher's NA moves with the ratio Av-B:Av-G = 16:6 (E) and 5:0.6 (EJ). However, in AC moves, 31 (E) and 14 (EJ) were directed to boys and 30 (E) and 4 (EJ) to girls with the ratio Av-B:Av-G = 3:3 (E) and 1:0.4 (EJ). These findings therefore suggested that the teacher directed more NA moves in E and EJ to boys than girls, and more AC moves in EJ to boys but an equal number of AC moves in English to both boys and girls.

Table 5.3: Instances and mean of the teacher's academic and non-academic moves directed to boys and girls over three lessons. T: Total instances, E: English, and EJ: English and Japanese.

Instances of teacher's moves		Total no. for boys	Mean for the 'average boy' (=total/ no. of boys)	Total no. for girls	Mean for the 'average girl' (=total/ no. of girls)
academic and non-academic in English (E) and English and Japanese (EJ)	T E EJ	266 203 63	24 19 6	104 94 10	10 9 1
academic moves in 'E' and 'EJ'	T E EJ	45 31 (69%) 14 (31%)	4 3 1	34 30 (88%) 4 (12%)	3 3 0.4
non-academic moves in 'E' and 'EJ'	T E EJ	221 172 (78%) 49 (22%)	20 16 5	70 64 (91%) 6 (9%)	7 6 0.6

5.1.3 Display and referential questions

From a total of 370 initiating moves (see Table 5.1), 321 were identified as elicit-

ing in the forms of questions (Table 5.4). This indicated that the remaining 49 moves were either informing and/or directing (however, in the analysis very few instances of directing moves were found). As types of initiating moves, this finding implied that the teacher mainly focused on eliciting moves, as his teaching strategy, as opposed to providing information to individual boy/girl students. Since a large number of teacher's initiating moves were eliciting (i.e. questions), I attempted to explore these further in terms of display (DQ) and referential questions (RQ) as shown in Table 5.4. Of 32 questions, 237 were directed to boys and 84 to girls with the boy and girl averages as 22 and 8 respectively. Of these 237, 33 (DQ), 204 (RQ) were directed to boys; and of 84, 43 (DQ), 41 (RQ) to girls. Obviously, the teacher directed more questions to boys than girls and boys were asked more referential questions both AC and NA. As for display questions, boys and girls received approximately the same number of AC and NA questions as is evident in the ratio Av-B:Av-G = 3:3 and 1:1 respectively (see Table 5.4). A similar pattern was observed by Sunderland (1996: 192-193) in that the 'average girl' received 16.92 testing' solicits (i.e. display questions), and the 'average boy' 14.93.

Table 5.4: Instances and mean of the teacher's questions directed to boys and girls over three lessons. T: Total questions, DQ: Display questions, RQ: Referential questions.

Instances of display (DQ) and referential questions (RQ)		Total no. for boys	Mean for the 'average boy' (=total/ no. of boys)	Total no. for girls	Mean for the 'average girl' (=total/ no. of girls)
academic and non-academic	T DQ RQ	237 33 204	22 3 19	84 43 41	8 4 4
academic	T DQ RQ	37 28 9	3 3 1	32 32 0	3 3 0
non-academic	T DQ RQ	200 5 195	18 1 18	52 11 41	5 1 4

5.2 Teacher's wait-time

As shown in Table 5.5, the teacher's (total) wait-time (WR, that is the time taken after directing a question and before getting a verbal response from a student) for

boys was 365 seconds and those for girls 181. Total instances of questions over three lessons in which wait-time was estimated were 229 directed to boys and 83 to girls. Wait-time per question (WR/Q) was 1.6 seconds for boys and 2.2 for girls with the ratio of Av-B:Av-G = 0.1:0.2. These findings show that the teacher waited longer for girls than boys to get a verbal response to his questions. The same pattern of wait-time was observed in teacher's AC questions. However, as regards wait-time in NA questions, WR/Q for boys and girls were 1.5 seconds (Av-B: 0.14) and 0.8 (Av-G: 0.1) respectively. This meant that the teacher waited longer for boys than girls in his NA questions. It is to be noted that in 9 questions (compare the total questions with the ones in Table 5.4) it was not possible to estimate the wait-time, either because the time was too short to measure or because the questions and responses occurred simultaneously. Therefore, these instances were not taken into account.

Table 5.5: Total and mean of the teacher's wait-time (in sec) after directing a question and before getting a response in his academic and non-academic questions over three lessons. WR: Total time, Qs: Number of questions directed, WR/Q: Wait-time per question.

Teacher Wait-time after directing a question and before getting a response in his questions		Total no. for boys	Mean for the 'average boy' (=total/ no. of boys)	Total no. for girls	Mean for the 'average girl' (=total/ no. of girls)
academic and non-academic	WR Qs WR/Q	365 229 1.6	33 21 0.1	181 83 2.2	18 8 0.2
academic	WR Qs WR/Q	68 33 2.1	6 3 0.2	143 32 4.5	14 3 0.5
non-academic	WR Qs WR/Q	297 196 1.5	27 18 0.14	38 51 0.8	4 5.1 0.1

5.3 Students' responses: Frequency and length

Total 288 responding moves from boys and girls were found (Table 5.6) to the teacher's 370 initiating moves (see Table 5.1). This meant that 82 moves either received no response or that responses were inaudible or non-verbal. Furthermore, of these 288, 205 were from boys and 83 from girls, with ratio Av-B:Av-G = 19:8. As regards lengths of the responses, of 523 words, boys spoke 342 (Av-B:31 words)

whereas girls spoke 181 (Av-G:18). Thus, boys' responses were more frequent and longer than those of girls. A similar pattern as regards students' responses to the teacher's NA solicits was observed by Sunderland. In her study, the frequency for the 'average boy' and 'average girl' was reported as 8.07 and 6.54 respectively (1996: 230, Table 6C).

Table 5.6: Instances, lengths (in words), and mean of students' responses to the teacher's academic and non-academic moves in three lessons.

Students' responses	Total no. for boys	Mean for the 'average boy' (=total/no. of boys)	Total no. for girls	Mean for the 'average girl' (=total/no. of girls)
Instances	205	19	83	8
Length	342 words	31	181	18

5.4 Teacher's feedback

5.4.1 Frequency and length

As shown in Table 5.7, a total of 122 instances of teacher's feedback to boys and 39 instances to girls were found. This meant that the average boy received feedback 11 times and the average girl 4 times. As regards lengths of the feedback, boys were

Table 5.7: Instances, lengths (in words), and mean of the teacher's feedback to students' response to his academic and non-academic moves over three lessons.

Teacher's feedback	Total no. for boys	Mean for the 'average boy' (=total/no. of boys)	Total no. for girls	Mean for the 'average girl' (=total/no. of girls)
Instances	122	11	39	4
Lengths	726 words	66	227 words	23

provided 726 words with the average boy receiving 66 words. On the other hand, girls received 227 words with the average girl receiving 23 words. Thus, the teacher directed more frequent and longer feedback to boys than to girls.

5.4.2 Affective feedback

The distribution of teacher's feedback to students in the form of affective feedback (AF) as positive (+AF), neutral (NAF) and negative (-AF) is shown in Table 5.8. Of total 122 instances, the distribution of AF directed to boys were +AF: 68, NAF: 39, and -AF: 15; and to girls +AF: 27, NAF: 12, and -AF: 0. The ratio of the average boy and girl receiving AF were 6:3 (+AF); 4:1 (NAF); and 1:0 (-AF). These findings suggested that the teacher directed more affective feedback of all forms examined to boys than girls and that the negative affective feedback was directed totally to boys.

Table 5.8: Instances and mean of the teacher's feedback to students' responses to his academic and non-academic moves over three lessons: TAF: total instances of affective feedback, +AF: Positive affective feedback, NAF: Neutral affective feedback, AF: Negative affective feedback.

Instances of teacher's affective feedback to students' response to his moves		Total no. for boys	Mean for the 'average boy' (=total/ no. of boys)	Total no. for girls	Mean for the 'average girl' (=total/ no. of girls)
academic and non-academic	TAF +AF NAF -AF	122 68 39 15	11 6 4 1	39 27 12 0	4 3 1 0

5.4.3 Cognitive feedback

Table 5.9 displays the distribution of the teacher's cognitive feedback (CF) directed to boys and girls in the form of positive (+CF) and negative (-CF). Comparing the findings in Table 5.8, the teacher seemed to provide more AF than CF to students. As regards CF of 29 instances, boys received 18, and girls 11 with the average boy and girl receiving 2 and 1 respectively. Furthermore, from a total of 18 instances of CF directed

Table 5.9: Instances and mean of the teacher's feedback to students' responses to his academic and non-academic moves over three lessons. CTF: Total instances of the cognitive feedback, +CF: Positive cognitive feedback, -CG: Negative cognitive feedback.

Instances of teacher's affective feedback to students' response to his moves		Total no. for boys	Mean for the 'average boy' (=total/ no. of boys)	Total no. for girls	Mean for the 'average girl' (=total/ no. of girls)
academic and non-academic	TCF +CF -CF	18 16 2	2 2 0.2	11 9 2	1 1 0.2

to boys, the distribution was +CF: 16 and -CF: 2; whereas for girls the distribution was +CF: 9 and -CF: 2. These findings suggested that the teacher directed (slightly) more positive cognitive feedback to boys and equal number of negative cognitive feedback to boys and girls as can be seen in the ratio Av-B:Av-G = 2:1 (+CF) and = 0.2:0.2 (-CF).

5.5 Other findings: Teacher's opening exchanges in transactions

Table 5.10: Instances and mean of opening T-B/G exchanges in 3 lessons. T-B/G: a teacher exchange with a boy/a girl, tr: transaction number. ex: exchange number where it appeared in the transcription.

Lesson # 1			Lesson # 2		Lesson # 3	
tr	T-B ex	T-G ex	T-B ex	T-G ex	T-B ex	T-G ex
I	1		1		2	
II	5		31		26	
III	28				55	
IV			62			58
V	40		65			
VI	43			77	63	
VII			89		67	
VIII		48		92		
IX	60				80	
X	65		103			
XI	67		106			
Total	8	1	7	2	6	1
T-B exchanges: 21; Mean average (=total/no. of boys): 2						
T-G exchanges: 4; Mean average (=total/no. of girls): 0.4						

Table 5.10 reports total instances of the teacher's *opening exchanges* in transactions (i.e. the exchanges in which the teacher made an initiation at the beginning of a transaction or soon after directing a boundary exchange) with boys and girls in each of the three lessons. Of 25 opening exchanges, 21 were with boys and 4 with girls. This meant that the average boy was focused on twice at the beginning of each transaction and the average girl 0.4 times. In other words, when opening exchanges in transactions of the lessons were observed, the teacher focused five times more often on boys than on girls.

5.6 Summary of findings

Based on the discussion of the findings in the preceding subsections, 17 patterns of teacher's attention to boy and girl students were found. For convenience, the patterns are summarized in Table 5.11 as the items in a tabulated form are easy to compare at a glance, and easy to be referred to back and forth. In the Table, the number in [ ] corresponds to the number in Sunderland's findings (see Appendix IA) where the pattern was found to be similar.

Table 5.11: Summarized findings of the present study.

	Teacher paid more attention to boys in terms of
01	instances and length [*03*] of AC moves
02	instances [*02*] and length [*03*] of NA moves
03	instances of AC moves in English and Japanese
04	instances of NA moves in English and English and Japanese
05	instances of total questions
06	instances of AC referential questions
07	instances of NA referential questions
08	length of wait-time in NA questions
09	instances [*05*] and length of boys' responses
10	instances and length of feedback
11	instances of positive, neutral and negative affective feedback
12	instances of positive cognitive feedback
13	instances of opening exchanges in transactions
	Teacher's paid more attention to girls in terms of
14	length of wait-time in AC questions
	Teacher's paid equal attention in terms of
15	instances of AC moves in English
16	instances of AC and NA display [*13*] questions
17	instances of negative cognitive feedback [*17ii*]

6. Discussion and Interpretation

6.1 Teacher's attention

The aims of this report were to examine the four overarching questions (Appendix IB) and it began with a general overarching question '[I] Will a male teacher's attention to 15-year old male and female learners in an EFL Japanese high school classroom differ?' (section 2.3). The question can be answered in the affirmative. In view of the results in the preceding chapter (Table 5.11), it is evident that the teacher in this study paid much more attention to boys than girls. This is in agreement with what has been reported previously with the exception of a few studies in which boys and girls were found to be treated equally (see chapter 2). In all patterns observed, only a single pattern (i.e. the teacher's wait-time in his academic questions) was found in which girls received more attention. Even in this single category, boys were focused on more through the teacher's wait-time in his non-academic questions (Table 5.11: line 08). In this chapter, I discuss the findings from Table 5.11 and will respond to the questions 'Why and how were the boys and the girls treated so differently?'. In doing so, I will refer to findings from the prevailing studies as well as the examples from my informal discussion with the teacher and from what I noticed during the class observation.

6.1.1 Teacher's initiating moves

The teacher paid more attention to boys predominantly in terms of instances and length of AC and NA moves (Table 5.11: 01-02). The attention was much more NA since the difference of AC moves directed to the boys and to the girls was small (see Tables 5.1-5.2).

One reason for this large proportion of teacher NA moves would be that the teacher was trying to keep order in the class. During observation, I noticed that there was a group of boy students whose behavior was intolerable, a fact that was confirmed during discussion with the teacher. The teacher repeatedly mentioned that he was more concerned about the boys' behavior, especially one particular group which was difficult to manage, and that he had no choice but to focus on these students (i.e. the disruptive group). By doing so, he found a way to get a hold on the rest of the boys. A similar situation was found in several studies. Sunderland (1996: 239) reports "more teacher attention directed to boys overall, in some cases statistically significantly so, but within this, to two particular boys". Croll (1985, Sunderland

1996: 45), in the case of a junior classrooms in the UK, points out "a small number of other boys receiving very high levels of teacher attention". French and French (1984, cited in Sunderland 1996: 238) report that "differential-teacher-attention was not commanded by the boys as a *whole*, but by a small subset of boys". On the other hand, Altani (1995: 149), in the primary schools in Greece, found that boys are more disruptive in the classroom than girls". In this regard, Sunderland (1996), focusing on the teacher's NA solicits in terms of routine and disciplinary actions, reports that the greater proportion of boys receiving disciplinary solicits was approaching statistical significance at the 5% level. Similar findings were reported by Webster (1993, cited in Sunderland: 60). Although, over three lessons few instances of NA disciplinary moves were found in the transcripts, during class observation I found that the tone of the teacher's voice was high from time to time, indicating uneasiness, when interacting with the boys. Additionally, the teacher's gaze was constantly in the direction of the boys. This means that the teacher's reaction was non-verbal. Therefore, the number of disciplinary moves in this study was few. Studies related to teacher's gaze are exceptionally rare, and no study is available as regards non-verbal gender differences in EFL/ESL classrooms in teacher-pupil interactions (see Sunderland 1996: 378). For this reason, my initial intention was to employ video in my study. However, it was not possible mainly because the school was reluctant to allow me to video record its classrooms. The only work I came across was by Swann and Graddol, which supports the non-linguistic pattern I observed. The researchers employed video to capture non-verbal differences in teacher-pupil interactions in a British primary school of 9-11 years old boys and girls. They discovered

> that 60% of the teacher's pupil-directed gaze was towards the boys... (One reason why teacher gaze may be directed more at the boys is, they [Swann and Graddol] suggest, because teachers are continually on the look-out for disruption, which they know from experience is more likely to come from male learners.). (Sunderland 1996: 48-49)

A second reason for the excess of teacher NA moves, which relates to the first reason, seemed to lie in the learning styles preferred by boys. According to the teacher, boys in general seemed to behave better if the teacher had interactions with them in the form of off-text questions, that is, the NA questions. Therefore, the boys were directed a larger number of referential questions than display ones (Table 5.4), more than those of the girls (Table 5.11: 06-07), which consequently increased the total

number of questions towards boys (line 05).

A third reason relates to the teacher's difficulties in dealing with boys and girls in his interactions with them. According to the teacher, he was having difficulties to employ heavily the same approach, that is, of asking general or social questions to girls partly because of their interests which were far different from those of boys and partly because his interaction with the individual girls might result in such problems as sexual harassment. As for the interests of boys and girls, compare exchanges 70-82 (Appendix II) with the ones 108-125 (Appendix III). In the former teacher-girl interactions, the topic relates to a 'toy' whereas in the latter teacher-boy interactions it is on the 'baseball'—a sport in which the school was specialized, and was therefore highly favored by all the boys as a topic for discussion. Fear of sexual harassment on the part of the teacher would be the case that forced him to direct fewer referential questions, involving personal information, to girls than boys since he was a male and since the class was conducted in an EFL environment with which he was unfamiliar.

As regards teacher's attention in the form of his moves in English and English and Japanese, interesting differences were found. The teacher paid equal attention in terms of instances of AC moves in English (Table 5.11: 15), and more attention to boys in terms of instances of AC moves in English and Japanese (line 03) as well as instances of NA moves in English and English and Japanese (line 04). This means that the teacher's use of non-EFL language (i.e. Japanese) in teaching contents and in dealing with the lesson's procedure was mainly towards boys. Furthermore, if we look at the distribution of the teacher's directed language within gender group (Table 5.3), we find that boys received more moves in English and Japanese than did girls (boys, girls = 31, 12% AC; and 22, 9% NA). In other words, girls received more moves in English than did boys. One possible explanation, of this tendency of directing more moves in English and Japanese to boys, could be that the teacher considered boy students as weaker or less able learners of a foreign language (in this case English), and wanted to help them (also see Sunderland 1996: 303). Alternatively, girls could be seen as better learners than boys since it was an EFL class and the objectives were to teach English. It would also be possible that the teacher, employing this bilingual approach, was trying to keep boys busy, especially the disruptive ones: staying with the same boys and keeping his exchanges longer (for instance see Appendix IV: lines 317-379).

6.1.2 Teacher's wait-time

As contrast with non-language classroom findings relating to mathematics (Gore and Roumagous 1983), and science (Rowe 1974), the teacher gave a longer time to girls than boys to respond to his AC questions (Table 5.11: 14). One reason for this longer wait-time in AC questions would be that since the teacher was checking answers through his display questions, using more English as we have seen in the previous subsection, it might require efforts on the parts of girls to (i) first understand the question, and (ii) then select one answer from several given possibilities as was the usual case in the present study (see for instance, Appendix II: 101-111; and Appendix III: 234-239). A further analysis of the questions revealed that girls, additionally, were directed slightly more AC open or wh-type questions over three lessons than boys were (Appendix V: Table 4) (also see Sunderland 1996 for similar finding). Therefore, the teacher could have found it necessary to wait for girls' response longer than those for boys. It is interesting to see that both boys and girls were directed an equal number of display questions (Table 5.11: 16); however, girls were provided with longer wait-time than that of boys. Gore and Roumagoux (1983: 273) state that "most teachers expect boys to outperform girls in mathematics. This difference for expectation for girls and boys might result in differing wait-time for boys vs. girls." In their study, teachers were found to give longer wait-time for boys than girls. In the present study, the teacher's longer wait-time would be the result of his expectation for girls in terms of being more able learners than boys.

On the other hand, it is not fully clear why boys were given longer time (than girls) to respond to a referential question since the language of the question partially comprised Japanese words. An analysis of the Japanese language used by the teacher revealed that most of the words were *lexical / content words* including nouns (*jisho* = dictionary), verbs (*hatta* = pasted), and adjectives (*atsui* = hot) or the words/phrases such as *ne* (= isn't it) that help grasp the meaning of a question. Since "lexical words carry a higher information content" (Carter 1996: 8), it would be easier for the boy students to comprehend the teacher's referential questions. If this is the case, then it would again be an attempt on the part of the teacher to keep the boys busy providing them longer wait-time in referential questions.

6.1.3 Students' responses

Boys were found to give more frequent and longer responses (Table 5.11: 09).

This finding can be seen as a reflection of the teacher's moves directed to boys (Table 5.11: 01-02). Obviously, if boys received more frequent and longer moves, it is highly probable that they had more chances than girls to respond to these moves which consequently produced more frequent responses. Furthermore, frequency of a response is likely to increase its length, which in fact was the case in the present study. In Sunderland's (1996) study, however, the result was different, in that, boys produced more responses than girls, whereas girls gave longer responses than boys. Further analysis of the students' responses as one-word or potentially longer over three lessons suggested that boys produced much longer responses (of both types) than did girls (see Appendix V: Table 10).

6.1.4 Teacher's feedback

In contrast to Sunderland's (1996: 214) finding that "the distribution of different types of feedback did not seem to vary with gender", the teacher in the present study provided much more feedback to boys than girls. Boys received more frequent and longer feedback (Table 5.11: 10). As regards types of feedback, they received affective elements as positive, neutral, and negative (line 11), and cognitive element as positive (line 12). Furthermore, negative affective feedback was provided to boys not only over three lessons, but also in each lesson (see Appendix V: Table 13). Here again, boys and girls were treated very differently. One reason to provide a great proportion of non-negative affective and cognitive feedback to boys could be that the teacher considered them weaker learners of English since feedback is likely to be given to those who are less able and consequently deserve most to get it. Negative affective elements of feedback, on the hand, would likely be the result of the teacher's criticism in response to boys disruptive or wrong behavior (for instance, see Appendix III: 34-38; and 132-136).

6.1.5 Teacher's opening exchanges in transactions

The teacher paid more attention to boys in terms of instances of opening exchanges in transactions (Table 5.11: line 13). As mentioned previously, the teacher was more concerned about the 'disruptive boys' who were difficult to manage. On the part of the teacher, this boy-first initiation in his directed exchanges seemed to be a part of his efforts to keep boy students attentive. A careful analysis of the transcripts revealed that the teacher interacted with boys and girls separately in

groups as opposed to boy and girl in turn, and that boys were treated much more in groups than girls. This would be an advantage for the teacher to convey a message to the boys which might be something like "when I initiate with a boy, then the next one after that would again be a boy, so be attentive and behave well". For the instances in which boys were treated in groups see Appendix II: exchanges 5-15; 28-33; Appendix III: 31-39; 45-51; Appendix IV: 80-87; 114-135, and for girls the Appendix II: exchanges 16-26; 70-82; Appendix III: 66-68; 80-85; Appendix IV: 38-44; 106-108.

6.2 Implications for learning opportunities

This subsection will respond to the implications question '[II] Will the teacher's attention to 15-year old male and female learners in an EFL Japanese high school classroom provide equal learning opportunities for the male and the female learners?' (section 2.3). The question can be answered in the negative. It should be noted that in the relevant discussion below, I assume an overlap of some of the contents already discussed above since the two issues relate close by to each other.

As regards the structure of an EFL classroom lesson, J. Willis (1995) makes a distinction in terms of *inner* and *outer*, where outer is reported to provide the framework of the lesson in which the language is used to socialize, organize, explain and check. The teacher's NA moves occupying the outer structure can be said to provide boys more motivation than girls to listen to the real language. The excess of this communicative use of the language (Cullen 1998: 181) can be seen further in the form of his referential questions. Such questions have been reported as promoting greater learner productivity (Chaudron 1993: 127, and Nunan 1989: 30) since they involve efforts of both teacher and the learners (Thornbury 1996: 279-280), and learners have been shown to respond to this type of question with significantly longer and more complex utterances (Brock 1986, and Nunan 1991). The process can be seen, for instance, by comparing an exchange initiated by the teacher using a display question (Appendix II: 183-188) with one employing a referential question (Appendix IV: 329-357). In the former example, the teacher repeated the same or a rephrased question 'how much?' 4 times and elicited a single response 'five hundred'. On the part of the teacher, the effort was to check whether the student knew the answer. On the other hand, the student's effort was to make a choice from several given answers and report to the teacher. On the contrary, in the latter example the

teacher directed 13 questions and elicited 10 responses because both the teacher and the student were working to *negotiate meaning* (Nunan 1989: 45). It can be seen in the form of the teacher's *comprehension checks* such as '*ya, yako*?', '*Nako*?', and '*NA.KU.KO*?' [NAFUKO]. On the part of the student, the effort would be to interact with the teacher. The student was making efforts to deal with a situation hard for the teacher to realize, which consequently resulted in various types of student responses such as repetition of the same response (i.e. *Nafuko* [Nafuko]), division of a response into its individual sounds (i.e. *FU, fu, fu, FU*) with emphasis on critical sounds (i.e. *FU*), and correction of a response at specific places (i.e. *Ko*). This entire process of negotiating meaning provided the student more practice in responding, and therefore in producing longer responses. A great number of such examples were found in the data (see Appendix II: 145-151; Appendix III: 140-154; Appendix IV: 413-419).

Chaudron (1993: 174) quoting second language classroom research points out that "In regard to teacher's strategies in questioning learners, the wait-time treatment was hypothesized to have similar positive effects on learners' participation...additional wait-time should especially allow L2 students a better opportunity to construct their response." Furthermore, Holley and King (1971) reported that in German classes, teachers who waited at least five seconds obtained an increase in student responses. There have been recommendations for longer wait-time (White and Lightbown 1984), and reports on successful increase in learner's responses with more than 4 seconds of wait-time (Thornbury 1996: 282; Korst 1997: 280, Nunan 1991: 193, and Farooq 1998: 9). Surprisingly, in the present study, the wait-time for girls (as a group) per AC question was found to be 4.5 seconds (see Table 5.5). This finding suggested that girl students benefited more than boys in the process of producing the foreign language in that they were provided with a better opportunity to construct their response.

The teacher in the present study provided much more feedback to boys than to girls. This obviously means that the teacher created more opportunities for boys, that is, to have them test whether their responses were right or wrong. However, boys also received the most frequent criticism as is evident in the negative affective element of the feedback which, on the parts of the disruptive boys, could be seen as insulting for example. Based on Vigil and Oller's (1976, cited in Brown 1994: 262) model of error correction, the most useful implications are that cognitive feedback must be optimal in order to be effective as was found in the present study especially

in the case of negative cognitive feedback. However, in view of the model, implications in regard to the negative affective feedback are as follows:

> What we must avoid at all cost is the administration of *punitive* reinforcement, or, correction that viewed by learners as an affective red light—devaluing, dehumanizing, or insulting their personhood. (Brown 1994: 263)

Studies concerning sexism in EFL/ESL textbooks based on linguistic and non-linguistic representations of gender have an extensive literature (see Hartman and Judd 1978, Porreca 1984, Narisawa and Tsutomi 1991, Sakita 1995, Takahara 1995, and Farooq 1999-b, 1999-c). Surprisingly, no formal attempts have been made to explore whether the findings as regards sexism in the textbooks have any relation to the ones in the classrooms. The possibilities, however, are pointed out by Porreca (1984), and Sunderland (1992, 1994-a, 1994-b, 1994-c). Sunderland (1992: 88) quoting the research by Holmes (1989) relating to ESL classrooms in Australia and New Zealand points out that "Applied to the EFL classroom, these findings might mean that males get more speaking practice and more feedback on their utterances." While findings in the current study support the above statement, I have observed another pattern which relates to a concept known as *omission* or *invisibility* (Florent et al. 1994: 114). The concept is defined as follows:

> When females do not appear as often as males in the text (as well as in the illustrations which serve to reinforce the text), the implicit message is that women's accomplishments, or that they themselves as human beings, are not important enough to be included. (Porreca 1984: 706)

Related to omission is the order of mention, termed as *firstness.* It is defined as "given two nouns paired for sex, such as *male / female*, the masculine word always comes first" (ibid: 706). In the current study, boys were addressed first rather than girls in most of the teacher's directed exchanges. The same pattern may be observed in EFL/ESL textbook dialogues, which are generally initiated by a male speaker who is followed by a female one. For instance, in one EFL textbook (Tofuku and Shaikh 1997) it was found that 75% dialogues were initiated by a male speaker (Farooq 1999-b and 1999-c). This boy-first initiation in the teacher's exchanges is likely to

give girls an impression that boys are more important since their interests are given priority as reported by Altani (1995: 149). This may have further negative effects on girls' communicative abilities. For instance, if the teacher first asks a question to a boy student at the beginning of a transaction (i.e. a new activity), and then repeats the same question or with little modification to a girl student, the girl most probably will have little or no interest in responding to the question. In this regard, Yepez (1994: 123) points out that

> Gender-differentiated classroom behavior that favors males, however, could cause female second language acquisition to suffer, since interaction is crucial in the ESL classroom and language-learning is an interactive skill.

Furthermore, if the process continues in every lesson whenever a new activity is introduced (as was the case here), there will be no point for girl students to make efforts to improve their listening and speaking abilities, and to listen to the entire process attentively.

To sum up, according to the teacher, he was making efforts to interact with boys and girls equally, for instance, by nominating them in turn. However, his efforts were very unlikely to have been appreciated by girl students who, in each lesson, saw that the teacher interacted more with boys both in terms of frequency and amount of interaction. This tendency will obviously create additional language learning opportunities for the boys in student-teacher interactions. A careful analysis of the boy-/girl-teacher interactions showed that boys in each lesson, in fact, interacted much more (approximately 79%) with the teacher than did girls. Over three lessons, the frequency of moves directed by boys and girls was 11 and 3 instances respectively which consequently produced longer moves (boys = 85 words; and girls = 22 words).

7. Conclusion

7.1 Outcomes of the study

This study was an attempt to examine the role of teacher's attention in mixed-sex EFL classrooms of Japanese learners which consequently throws light on the provision of learning opportunities for male and female learners. As a small-scale case study, three 50-minute lessons given by a male teacher to 11 boy and 10 girl

high school first-graders (aged 16) were analyzed. Methodologically, Sinclair and Coulthard's analytical categories were adapted to design a general framework. The framework was then employed to code the transcribed classroom data of three lessons in the forms of (i) the teacher's initiating moves directed to boy and girl students, (ii) responses from the students to the teacher's moves, and (iii) the teacher's feedback to the students' responses. An initiating move was seen as academic or non-academic along with its intended language type as English or English and Japanese. The move was further examined in terms of the teacher's questions (as display or referential), and the wait-time allowed to respond to the questions. Likewise, the follow-up moves as feedback were classified as affective or cognitive.

As explained in the preceding sections, the overall findings suggested that the teacher paid more attention to boys than girls which was in agreement with the prevailing findings from foreign and non-foreign language classrooms, but differed from the ones in ESL classrooms (see chapter 2). This discrepancy resulted from the fact that the teacher was treating boys and girls differently: Girls were apparently seen as more academic, able and well-behaved learners on the basis of such information as the teacher's wait-time, language used in his directed moves, and absence of negative cognitive feedback. In contrast, boys were evidently seen as learners who needed attention partly because of their more immature and thus more disruptive nature (Altani 1995: 154) and partly because of their comparatively lower language learning abilities (Sunderland 1996: 303).

7.2 Suggestions for equal attention in EFL/ESL classrooms

Yepez (1994: 123) quoting research relating to non-language subject classrooms notes that "educators are generally unaware of biases in their behavior, which may mean that differential treatment of the genders is often unintentional". Similarly, Kelly (1988: 20-21) in her meta-analysis concludes as follows:

> The discrepancies are just as large in teacher-initiated interactions as in pupil-initiated interactions, which suggests that teachers are either unaware of the way in which males dominate in class, or are unsuccessful in controlling this domination.

Concerning ESL research, Yepez's (1994: 129) interview with her teachers re-

vealed related findings as follows: "These responses showed that the teachers had some awareness of their behavior with the genders, but the interview seemed to be their first time thinking the issue through."

Earlier findings from the literature highlight the importance of making teachers aware of the issue of providing equal attention to boys and girls in mixed-sex classes, as well as training them since "[t]he results of the meta-analysis suggest that trained teachers are much more successful than un-trained teachers in reducing sex bias in their classrooms" (Kelly 1988: 15). However, the literature also suggests that even the trained teachers were unsuccessful in controlling criticism in their classes (ibid: 21). Strictly speaking, this means that the issue 'how teachers and students alike could possibly be helped?' remains unanswered and requires consideration. If we look at the exchange structure 'I (R/I) R (F)' (Coulthard and Brazil 1995: 72), we can see that the classroom interaction is managed by its speakers, say a teacher and a student, and that it is a combined product of the efforts made by the speakers. This implies that the teacher is likely to manage the interaction (i.e. pay equal attention) provided the other speaker (i.e. boy or girl student) is willing to co-operate. Consequently, in order to manage to distribute attention including criticism equally between the sexes an ESL teacher can be given at least the following three suggestions:

- First, do realize the responsibility to pay equal attention to boys and girls, since "it is not unfair to demand that teachers should become aware of their own biases" (Kelly 1988: 15);
- Second, make sincere efforts to train yourself to achieve this goal; and
- Third, find ways to make your students aware of your goals to get their co-operation.

Furthermore, if the class is conducted in an EFL environment such as Japan where the rules as regards English education that may affect classroom interactions are made, practiced and controlled by the administrators of high schools through the Ministry of Education (see Miura 1997), the most crucial suggestion for an EFL teacher of Japanese high school learners besides the ones above would be to discuss the relevant issue with the administrators and ask for their assistance in this regard (also see Power 1992: 210-211).

7.3 Weaknesses of the current research

One of the weaknesses of this study and probably the most crucial one is that the findings, based on merely three lessons, yielded limited information which can lead to only the most tentative of generalizations.

Another crucial shortcoming is as follows: Although the transcribed data was easily fitted into Sinclair and Coulthard's adapted categories, decision on certain teacher moves was difficult as can be seen in the light of the following questions along with exemplified data.

(1) Is the following move initiating or follow up since it is found in isolation, that is, not in the explicit 'I R F' form? (Appendix II: 084)

T: Very nice, very good Aya. Thank you, very (stress) good, perfect.

(2) Is the following move directed to a boy or a girl student since it is found in isolation and since it does not contain a student's name? (e.g. Appendix II: 090)

T: Very good perfect perfect perfect excellent (inaudible).

(3) How many words of the following move are directed to the whole class and how many words to an individual student, since the move is so long and seems to be directed both to the whole class and an individual student? (e.g. Appendix III: 270)

T: Yes, the amount of yen to other money in the world, yeah. Yeah, exchange rate. So today (writes on the chalkboard) one hundred and five yen equals one dollar, exchange rate. So one hundred and five yen equals one dollar today. Un when I first came to Japan, one, maybe, one, one nineteen, or one twenty one, one twenty one. So, I was very happy. And, now unhappy, very sad, ah I'm poor. *Demo* [but] if yen is eighty yen equal one dollar, *yokatta* [lucky] I'm rich, I'm rich. So, I want, I want yen to go down, more more more, so I will be rich. *ii desu ka*, [do you understand?] exchange rate? You understand? (#) Yeah? okay.

(4) In the following exchange, is the teacher providing any cognitive (as well as affective) feedback, since the move has no words that signals that the teacher is commenting on the linguistic form of the student's response? (Appendix III: 333-335)

T(I): Kenta, i it's easy yeah? It was easy?
B(R): No
T(F): (laugh) It's difficult. You did good though. Yeah, you did really good.

7.4 Recommendations for further study

Because of time and space constraints, it was not possible to examine all the research questions initially planned. The findings of the questions which were not fully discussed or reported are included for reference in Appendix V in Table 4, Table 6, Table 7, Table 10, Table 11, and Table 15. They are intended to be utilized in future studies in order to examine the teacher's attention in other areas.

The current study focused mainly on teacher initiated 'teacher-student interactions' and reported results over three lessons. However, the analyzed data can also be employed to examine further teacher's attention in 'student-teacher interactions' initiated by students which was not possible to fully include in this report, again due to space and time limitations. This further study is important in that as far as I know, no work has been reported regarding EFL classroom, particularly involving Japanese learners. The only work in this direction is related to German classes reported by Sunderland (1996).

Furthermore, the general framework developed in this study can be employed in its present form to focus on larger samples of mixed-sex classroom data which will certainly be helpful in generalizing the findings in the larger EFL context of Japanese high school male/female learners.

Lastly and more importantly, working on the research reported in this study I suggest that the following specific areas should be explored. They are crucially important since little is know about them concerning EFL/ESL classroom studies:

(i) Non-verbal gender differences in the form of teacher's gaze.
(ii) Teacher's intonational patterns in teacher initiated 'teacher-male/female interactions'.

(iii) Male teachers' perception of 'sexual harassment', whether the fear of sexual harassment forces the teachers to interact less with girls than boys especially in the EFL classrooms of Japanese learners.

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